Features

- Bushing mount
- Optional center tap and rear shaft extension
- Optional AR lug feature
- Gangable with common or concentric shafts
- High torque available
- Non-standard features and specifications available

3540/3541 - Precision Potentiometer

**Electrical Characteristics**

- **3540 Wirewound Element**
  - Standard Resistance Range: 100 to 100 K ohms
  - Total Resistance Tolerance: ±5%
  - Independent Linearity: ±0.5%
  - Effective Electrical Angle: 360° ±10°, ±90°
  - Absolute Minimum Resistance: 1 ohm or 0.1% maximum
  - Minimum Voltage: (whichever is greater)
  - Noise/Output Smoothness: 100 ohms ENR maximum
  - Diode Dielectric Withstanding Voltage: MIL-STD-202, Method 301
  - Sea Level: 1,000 VAC minimum
  - Temperature Coefficient Over Operating Temperature Range: -40 °C to +125 °C
  - Total Resistance Shift: ±5% maximum
  - Total Resistance Tolerance: ±5%

- **3541 Hybritron® Element**
  - Power Rating: 2 watts
  - Temperature Coefficient Over Operating Temperature Range: -40 °C to +125 °C
  - Total Resistance Shift: ±0.5% maximum
  - Total Resistance Tolerance: ±10%

**Environmental Characteristics**

- Operating Temperature Range: -40 °C to +125 °C
- Storage Temperature Range: -55 °C to +125 °C
- Shock: 50 G
- Wiper Bounce: 0.1 millisecond maximum
- Insulation Resistance (500 VDC): 1,000 megohms minimum
- Resolution: See recommended part nos. Essentially infinite

**Mechanical Characteristics**

- Stop Strength: 53 N-cm (75 oz-in.) minimum
- Mechanical Angle: 360° +10°, -90°
- Torque: Starting & Running @ +25 °C: 0.49 N-cm (0.07 in.-lb.) max.
- Starting & Running @ -40 °C: 1.76 N-cm (0.25 in.-lb.) max.
- Mounting: 170-200 N-cm (15-18 lb.-in.) max.
- Shaft Runout: 0.08 mm (0.003 in.) T.I.R.
- Lateral Runout: 0.13 mm (0.005 in.) T.I.R.
- Shaft End Play: 0.30 mm (0.012 in.) T.I.R.
- Shaft Radial Play: 0.08 mm (0.003 in.) T.I.R.
- Pilot Diameter Runout: 0.06 mm (0.003 in.) T.I.R.
- Backlash: 1.0° maximum
- Weight: Approximately 21 gm
- Terminals: Gold-plated solder lugs

**Recommended Part Numbers**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Resistance (Ω)</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>3540S-1-104L</td>
<td>100,000</td>
<td>.008</td>
</tr>
<tr>
<td>3540S-1-204L</td>
<td>20,000</td>
<td>.014</td>
</tr>
<tr>
<td>3540S-1-504L</td>
<td>5,000</td>
<td>.021</td>
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<tr>
<td>3540S-1-104L</td>
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<td>.027</td>
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<tr>
<td>3540S-1-204L</td>
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<td>.021</td>
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<tr>
<td>3540S-1-504L</td>
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<td>.021</td>
</tr>
<tr>
<td>3540S-1-104L</td>
<td>10,000</td>
<td>.015</td>
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<td>3540S-1-204L</td>
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<td>.008</td>
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</tbody>
</table>

**Product Dimensions**

<table>
<thead>
<tr>
<th>3540S-1/3541H-1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Environmental Tolerances**

- **Tolerances:** WHERE NOTED
- **Decimals:** XX or (000)/30X
- **Fractions:** ±16 1/64
- **Dimensions:** MM or IN

**Note:** Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.


**Features:**
- Bushing mount
- Optional center tap and rear shaft extension
- Optional AR lug feature
- Gangable with common or concentric shafts
- High torque available
- Non-standard features and specifications available
Panel Thickness Dimensions

Anti-rotation pin hole is shown at six o’clock position for reference only. The actual location is determined by the customer’s application. Refer to the front view of the potentiometer to see the location of the optional A/R pin.

Panel thickness and hole diameters are recommended for best fit. However, customers may adjust the dimensions to suit their specific application.

<table>
<thead>
<tr>
<th>DIMENSIONS</th>
<th>IN (INCHES)</th>
<th>TOLERANCES: ± 0.127 (0.005)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.44 x .07</td>
<td>.411 x .003</td>
<td></td>
</tr>
<tr>
<td>7.42</td>
<td>.292</td>
<td></td>
</tr>
<tr>
<td>2.46 - 3.81</td>
<td>(697 - 150)</td>
<td></td>
</tr>
<tr>
<td>1.60 x .083</td>
<td>.063 x .003</td>
<td></td>
</tr>
<tr>
<td>10.44 ± .07</td>
<td>(.411 ± .003)</td>
<td></td>
</tr>
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